

REMARKS

This Amendment, submitted in response to the Office Action dated November 21, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

As a preliminary matter, Applicant respectfully requests that the Examiner accept the drawings filed May 22, 2000.

Claims 1-12 are pending in the present application. Claims 1-12 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Curry (US 5,696,604). Applicant submits the following in traversal of the rejection.

In Curry, a halftone cell is created by a halftone dot pattern. The halftone dot pattern has a circular dot 36 in highlight regions. As the regions become darker, larger numbers of the 32x32 scan positions are turned on to define circular dots of larger diameters (36' and 36''). The circular dots get larger to a mid-range in which the circular dot 38 is tangent to a square or *diamond 40 that fills half of the regions of the halftone cell 32*. As the dot becomes larger, it becomes a diamond or square with progressively less rounded corners (42, 42', and 42''). The halftone cell is half black when the diamond 40 is completely filled. Thereafter, the black region fills out along patterns 44, 44' and 44''. See Figs. 5A-5D and column 5, lines 26-39.

Upon viewing the figures and specification of Curry, it appears that Curry suffers from the deficiency in the prior art, solved by the present invention. The prior art illustration of halftone dot growth (see Fig. 4, page 16, lines 21-page 17, line 7 of the present invention) is similar to Curry. Therefore, Curry suffers from the tone jumps of the prior art and does not anticipate the present invention

Furthermore, Curry exemplifies that the dots transform to a square or rhomboidal shape only at an intermediate percentage. Therefore the dots do not have a circular shape in percentage areas before and after the intermediate percentage. In other words, Curry merely discloses conventional art illustrated in FIG. 11 of the present invention.

On the other hand, in the present invention, the transformation of halftone dots from circle to square occurs not only at an intermediate percentage, but also at a wide range of percentage areas (from the second highlight percentage to the second shadow percentage, which is the third transformation zone). Curry does not disclose, much less imply, that the halftone dots grow maintaining its square shape in the third transformation zone.

Claim 1

The Examiner states that Curry teaches growing the halftone dots while changing from the circular or elliptical shape to a square or rhomboidal shape in a second transformation zone from the first highlight percentage to a second highlight percentage greater than the first highlight percentage. Column 4, lines 42-26, and column 5, lines 34-36.

In Curry, after the transformation from the circular or elliptical shape, the halftone dots transform to a square or rhomboidal shape. However, the transformation to the square or rhomboidal shape occurs in an intermediate percentage (see Fig. 5A and 5B, column 5, lines 30-35) and not in a highlight percentage.

Furthermore, column 4, lines 42-46 describes transforming the circle halftone dot into a diamond halftone dot in the highest density range from .8 to 1 (80%-100% of the cell is filled in). Column 5, lines 34-36 states that as the dot becomes larger, it becomes a diamond or square with progressively less rounded corners 42, 42', and 42". However, there is no indication that the

halftone dots are grown while changing from the circular or elliptical shape to a square or rhomboidal shape in a second transformation zone from the first highlight percentage to a second highlight percentage greater than the first highlight percentage.

The Examiner then states that Curry discloses growing halftone dots in a square or rhomboidal shape in a third transformation zone from the second highlight percentage to a second shadow percentage, citing column 4, lines 42-46 and column 5, lines 34-36.

There appears to be at most one halftone dot growth in a square or rhomboidal shape in Curry. See Fig. 5B. As previously indicated, this occurs in an intermediate percentage and not in a second highlight percentage to a second shadow percentage.

For the above reasons, claim 1 and its dependent claims should be deemed patentable. Since claims 4, 7 and 10 require similar elements, claims 4, 7, 10 and their dependent claims are patentable for the same reasons.

Claim 2

Claim 2 describes that the second highlight percentage is at most 48% and the second shadow percentage is at least 52%. The Examiner states that this corresponds to the last stage in dot growth (40) in Fig. 5B to the first stage in dot growth (44) in Fig. 5C.

The last stage in dot growth (40) is at an intermediate percentage which is about 50%. The circular dots continue getting larger to a mid-range in which the circular dot 38 is tangent to a square or diamond 40 that fills *half* of the region of the halftone cell 32. Column 5, lines 31-33. Therefore, the second highlight percentage is more than 48%.

For the above reason, claim 2 should be deemed patentable. Since claims 5, 8 and 11 describe similar elements, they are patentable for the same reason.

Claim 3

The Examiner states that when the halftone dots of Curry are grown in the square or rhomboidal shape, that they are successively grown along each of the sides thereof while minimizing any displacement of the center of gravity of the halftone dots as seen in Figs. 5C-5D. Claim 3.

There is no indication that the halftone dots of Curry are successively grown along each of the sides thereof while minimizing any displacement of the center of gravity of the halftone dots. The Examiner merely reiterated the language of the claim and generally cited the figures for teaching the elements of claim 3.

Since the Examiner has not established that the elements of claim 3 are taught in Curry, claim 3 should be deemed patentable. Since claims 6, 9 and 12 require similar elements, they are patentable for the same reasons.

Claim 4

Claim 4 describes an apparatus for outputting a halftone plate of halftone dots. The Examiner states that the dot area parameter calculator 28 of Curry corresponds to the first, second, third, fourth and fifth halftone dot generating means of claim 4.

Dot area parameter calculator 28 does not appear to be a generating means for growing halftone dots as described in claim 4. In particular, dot area parameter calculator 28 calculates parameters for the halftone dots of varying intensity levels. Parameter calculator 28 is not a generating means for growing the halftone dots as claimed. Therefore, claim 4 should be deemed patentable.

Applicant has added claims 13-15 to provide a more varied scope of protection.

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. APPLN. NO.: 09/575,529

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

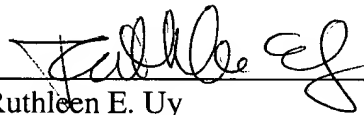
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